

Work Order ID 143625

March 17, 2016 12:01:27 PM

143625

Ship *wednesday* ^{Page 1}

Item ID: D3535-13 Accept ***N900040100*** Setup Start ***NS1***
 Revision ID: Stop ***NS2***
 Item Name: Wearplate Fwd
 Start Date: 3/24/2016 Start Qty: 20.00 ***20*** Cust Item ID:
 Required Date: 4/5/2016 Req'd Qty: 20.00 ***20*** Customer:
 Reference:

Approvals: Process Plan: *SWA* **20160317** Tooling: Date: Run Start ***NR1***
 QC: Date: SPC (Y/N): Date: Stop ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr	Revision Nbr
D3535	Rev B

100	FLOW WATER JET	0.00							
100									
Waterjet	Memo	0.10							
FLOW CNC Waterjet	1-Cut as per Dwg D3535 Dwg Rev: <u>B</u> Prog Rev: <u>B</u> 2- Deburr if necessary								

110	QC2- Inspect parts off machine FAI/FAIB	0.00							
110									
QC	Memo	0.00							
Quality Control									

120	QC8- Inspect parts - second check	0.00							
120									
QC	Memo	0.01							
Quality Control									

DATE
388
MAR 22 2016

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :				MRB (QSI042) Approval Completed By _____ Lead hand / Supervisor Approval Verification _____ QC / QA Coordinator Approval _____	
Description Work Order Deviation				Disposition					

Root Cause			FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence
Past Expiry Date	☐	Manufacturing Process	OTHER : _____							
Misidentified	☐	Past Due								

143625

Page 2

Approvals: **Process Plan:** _____ **Date:** _____ **Tooling:** _____ **Date:** _____ **Run** **Start** ***NR1***
 QC: _____ **Date:** _____ **SPC (Y/N):** _____ **Date:** _____ **Stop** ***NR2***

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130	NC BRAKE	0.00							
130					DAS 30 9-89	23			MAR 22 2016
Brake NC	Memo	0.02							
Brake NC	1-Form on Brake as per Dwg D3535 using Jigs DT8261and DT83262-Form joggle as per Dwg D3535 using Jig DT8158Identify as D3535-13								
140	QC5- Inspect part completeness to step on W/O	0.00							
140						23			DAS 38 9-89 MAR 22 2016
QC	Memo	0.01							
Quality Control									
150	Grey Sandtex(Ref:4.3.5.6) per QSI005 4.3	0.00							
150						23	0	16-03-22	DAS 34 9-89
Powdercoat	Memo	0.01							
Powder Coating	START TIME: 3:15 OVEN TEMPERATURE: FINISH TIME: 3:45								

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QS1042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Mislabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐							
		OTHER : ☐							

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval Completed By Lead hand / Supervisor Approval Verification QC / QA Coordinator Approval		
Description Work Order Deviation				Disposition					
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		OTHER : ☐							

Picklist Print

March 17, 2016 12:01:33 PM

Page 1

Work Order ID: 143625

143625

Parent Item: D3535-13

D3535-13

Parent Item Name: Wearplate Fwd

Start Date: 3/24/2016

Required Date: 4/5/2016

Start Qty: 20.00

Required Qty: 20.00

Comments:

IPP Rev:A New Issue 07-02-15 JLM

IPP Rev:B As per Rev B 07-08-31 JLM Verified By:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M304S20GA		Purchased	No			100	sf	126.9210	0.8505	17.90526			

M304S20GA

304/316 .040 Sheet

03/16/03/21

Location

Loc Qty

Loc Code

MAT020

95.8

m134067

31.8

m134399

64

MAT20

31.121

m133901

31.121

12

6

DART AEROSPACE LTD		Work Order:	143625
Description: Wearshoe		Part Number:	D3535-13
Inspection Dwg: D3535 Rev: B		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.885	+/-0.010	1.891	/		V-D-02	
2.000	+/-0.010	2.005	/		Tap	
5.650	+/-0.010	5.651	/		V-D-01	
9.150	+/-0.010	9.153	/			
14.066	+/-0.010	14.066	/			
18.983	+/-0.010	18.983	/			
23.900	+/-0.010	23.900	/			
27.400	+/-0.010	27.400	/			
29.400	+/-0.010	29.400	/			
32.900	+/-0.010	32.900	/			
Ø0.188	+0.005/-0.001	Ø.187	/			
20.00	+/-0.030	20.00	/			
14.00	+/-0.030	14.00	/			
8.00	+/-0.030	8.00	/			
5.00	+/-0.030	5.00	/			
0.300	+/-0.010	.296	/			
0.300	+/-0.010	.297	/			
0.038	+/-0.010	.035	/			

Measured by:	pc	Audited by:	DAS 38 9-89	Prototype Approval:	N/A
Date:	16/03/21	Date:	MAR 22 2016	Date:	N/A

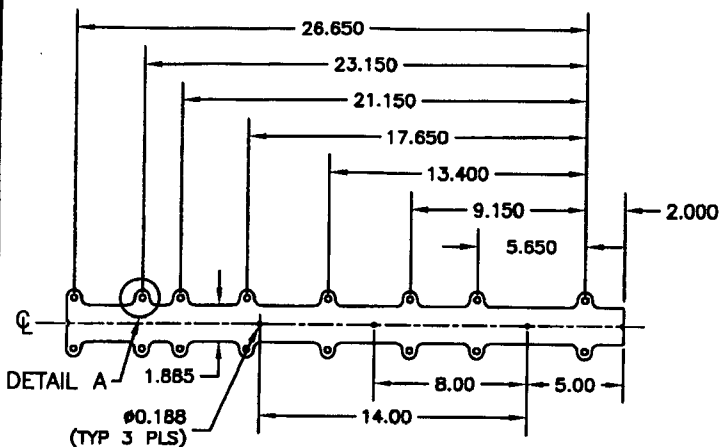
Rev	Date	Change	Revised by	Approved
A	08.04.15	New Issue	KJ/DD	DD



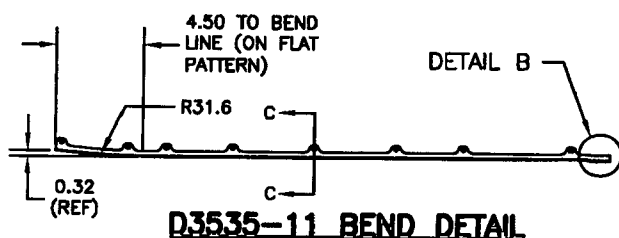
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07.04.24

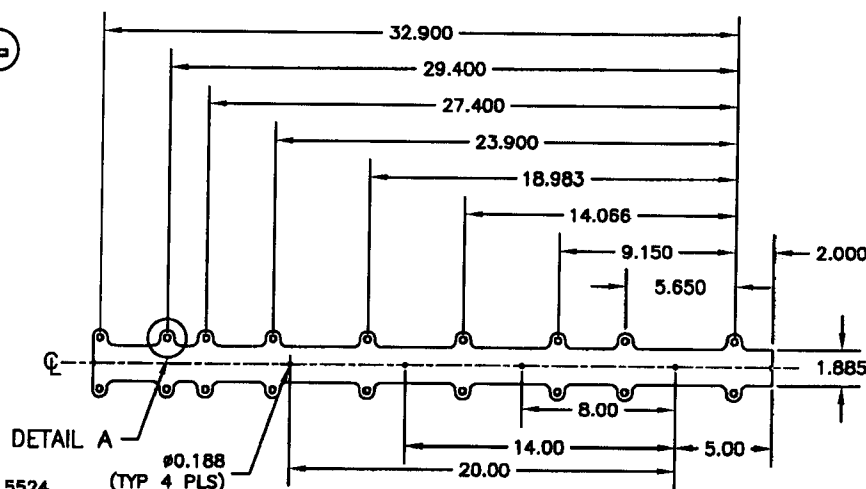
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CB	PH	PORT HADLOCK, WA
CHECKED	APPROVED	DRAWING NO.
TH	TH	D3535
DATE	TITLE	REV. B
07.04.17	WEARSHOE	SHEET 1 OF 7
A	06.10.25	NEW ISSUE
B	07.04.17	MOVE TAB OUTBOARD, ADD AMS SPEC
		SCALE 1:10



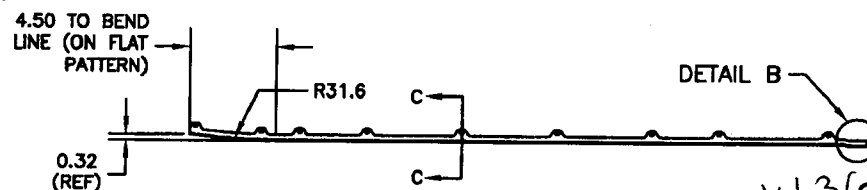
D3535-11F FLAT PATTERN



D3535-11 BEND DETAIL



D3535-13F FLAT PATTERN



D3535-13 BEND DETAIL

NOTES

- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK) (REF DART SPEC M304S20GA)
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER QSI 005 4.3
- 3) PART IS SYMMETRICAL ABOUT C
- 4) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED
- 5) ALL DIMENSIONS ARE IN INCHES
- 6) BREAK ALL SHARP EDGES TO 0.010 MAX
- 7) IDENTIFY WITH DART P/N USING WHITE FINE POINT PAINT MARKER
- 8) SEE PAGE 7 FOR DETAILS AND SECTION

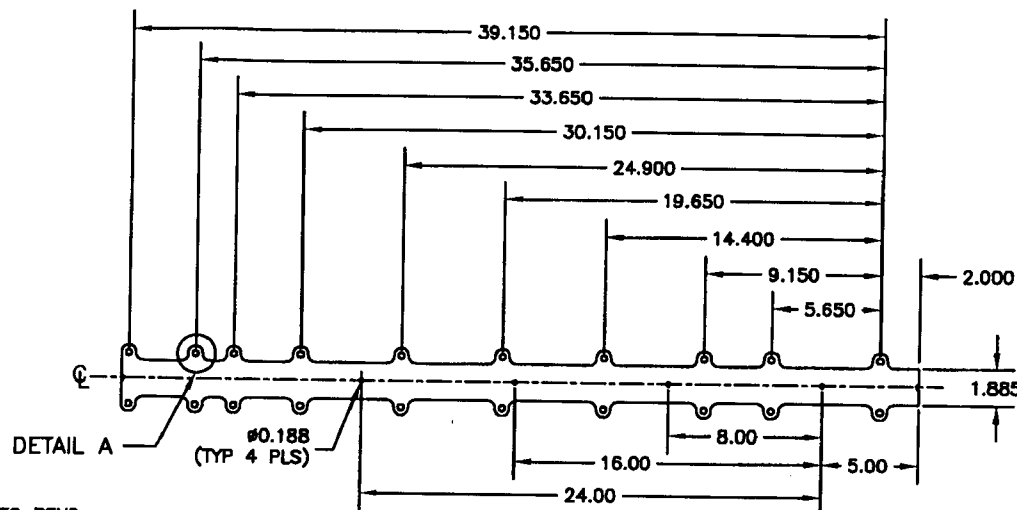
143625
20160317



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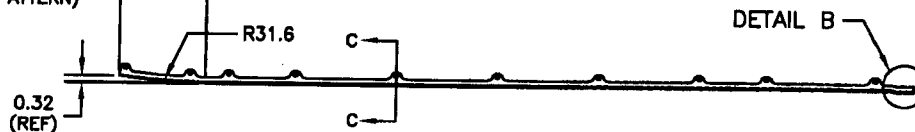
07.04.24

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		D3535	SHEET 2 OF 7	
DATE		TITLE	SCALE	
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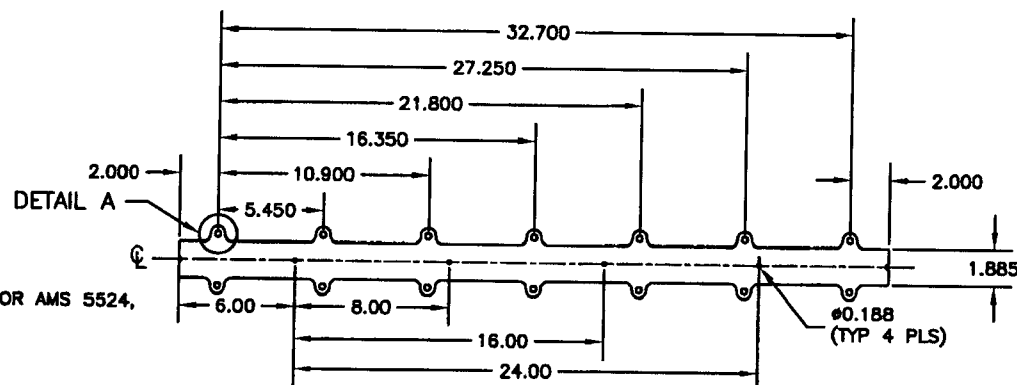


4.50 TO BEND
LINE (ON FLAT
PATTERN)

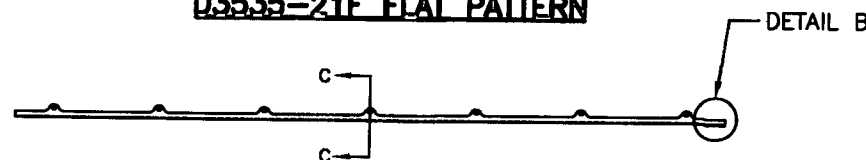
D3535-15F FLAT PATTERN



D3535-15 BEND DETAIL



D3535-21F FLAT PATTERN



D3535-21 BEND DETAIL

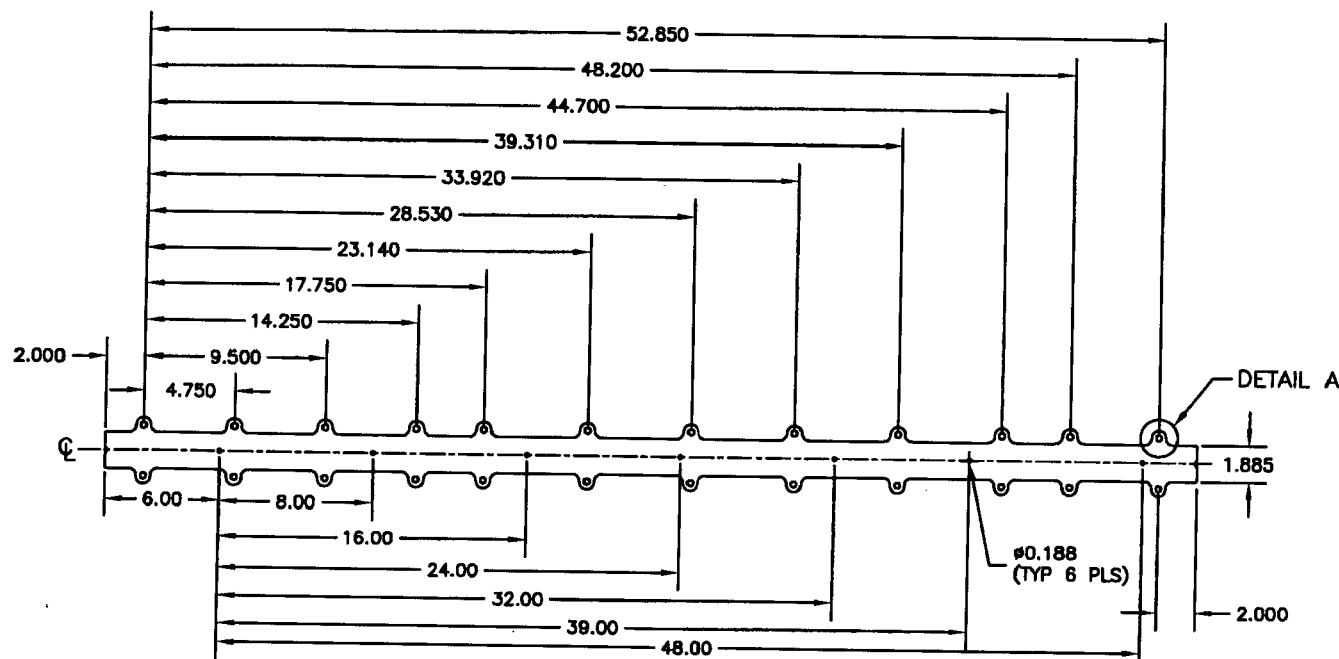
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- 1) MATERIAL: AISI 304/316 SS SHEET PER AMS 5513 OR AMS 5524, 20 GAUGE (0.038 THICK)
(REF DART SPEC M304S20GA)
- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER QSI 005 4.3
- 3) PART IS SYMMETRICAL ABOUT ϕ
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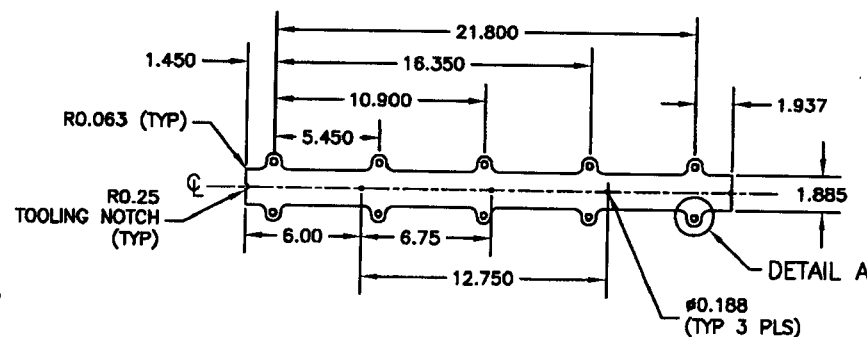
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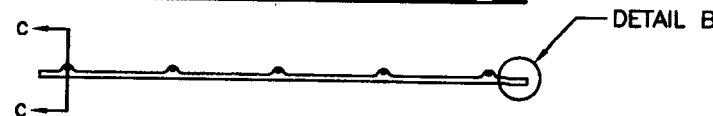
D3535-23F FLAT PATTERN



D3535-23 BEND DETAIL



D3535-25F FLAT PATTERN



D3535-25 BEND DETAIL

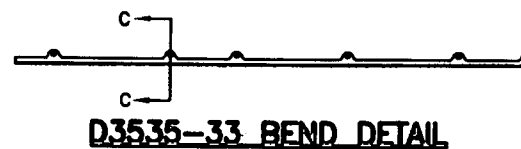
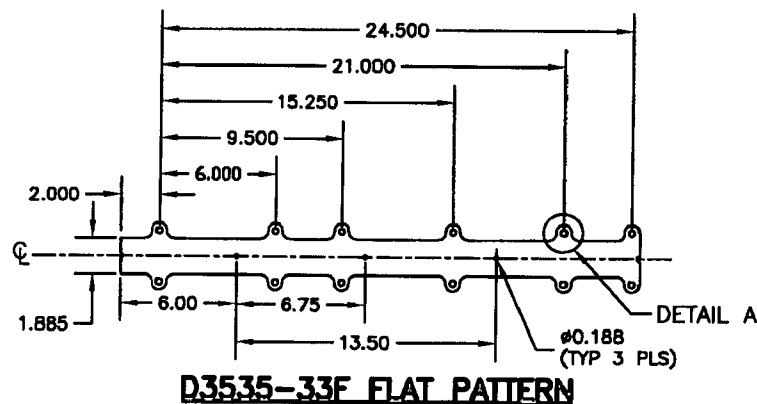
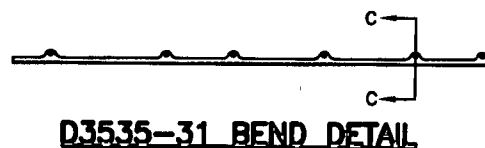
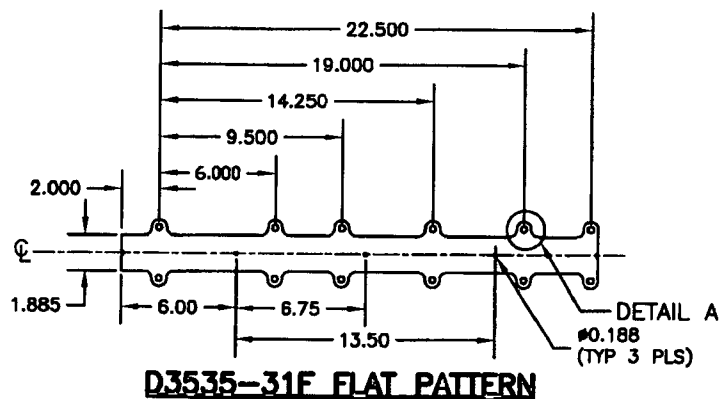
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- 2) FINISH: POWDER COAT GREY SANDTEX (4.3.5.6) PER QSI 005 4.3
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DESIGN	C.B.	DRAWN BY	PH	DART AEROSPACE USA, INC.
CHECKED		APPROVED		PORT HADLOCK, WA
DATE	07.04.17	TITLE	D3535	REVISION
			WEARSHOE	SHEET 3 OF 7
				SCALE
				1:10



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07.04.24



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CHECKED <i>[Signature]</i>	APPROVED <i>[Signature]</i>	DRAWING NO. D3535	REV. B
DATE 07.04.17	TITLE WEARSHOE	SHEET 4 OF 7	SCALE 1:10

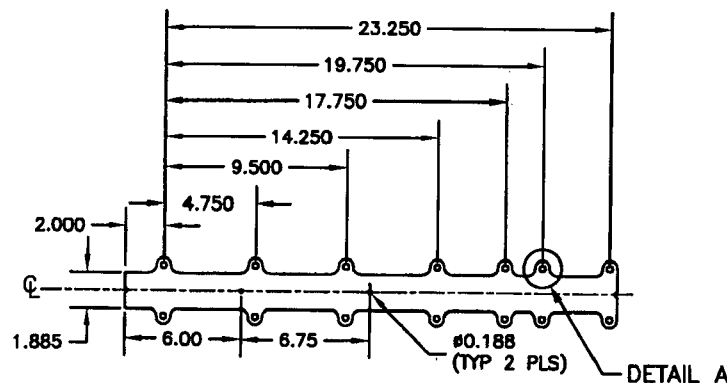
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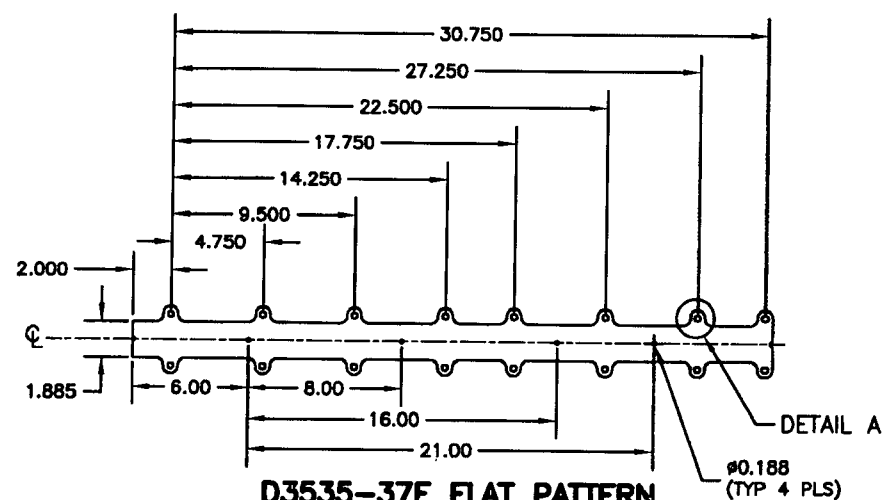
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DATE	07.04.17	DRAWING NO.	D3535	REV. B
		TITLE	WEARSHOE	SHEET 5 OF 7
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D3535-35F FLAT PATTERN



D3535-35 BEND DETAIL



D3535-37F FLAT PATTERN



D3535-37 BEND DETAIL

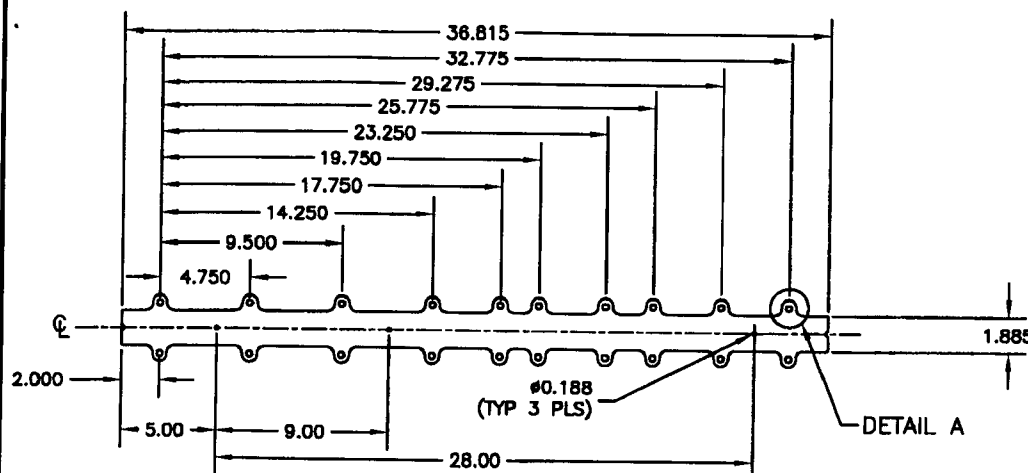
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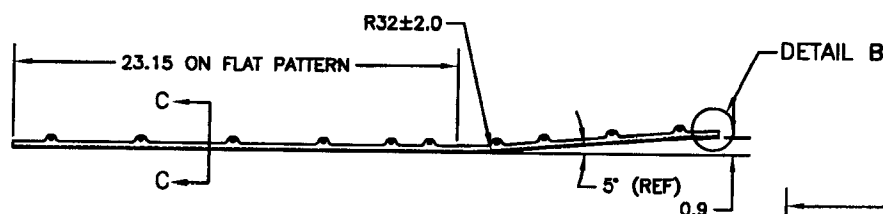


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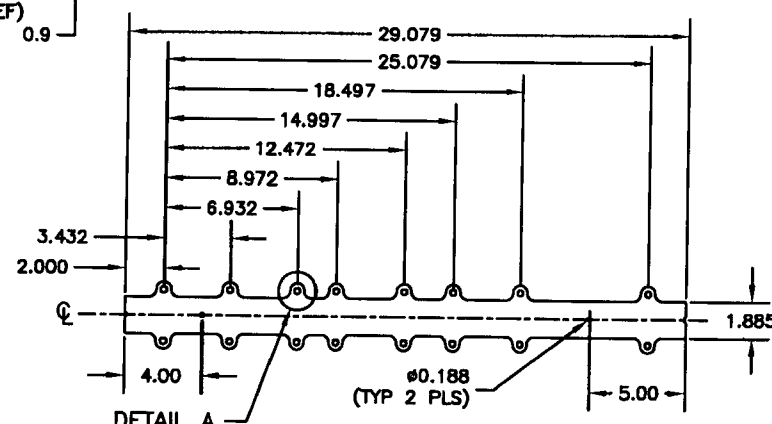
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		TITLE	WEARSHOE	SHEET 6 OF 7
		SCALE	1:10	



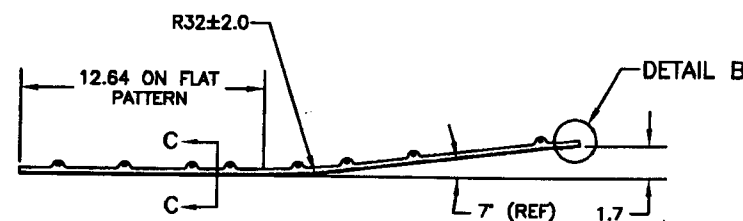
D3535-39F FLAT PATTERN



D3535-39 BEND DETAIL



D3535-41F FLAT PATTERN



D3535-41 BEND DETAIL

NOTES

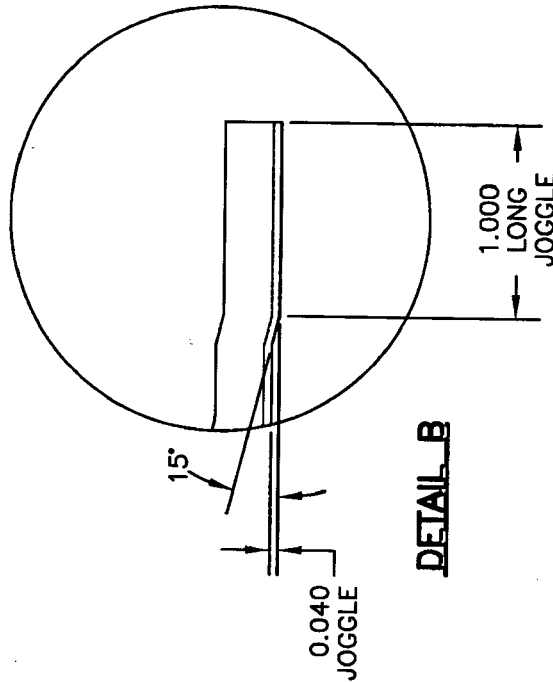
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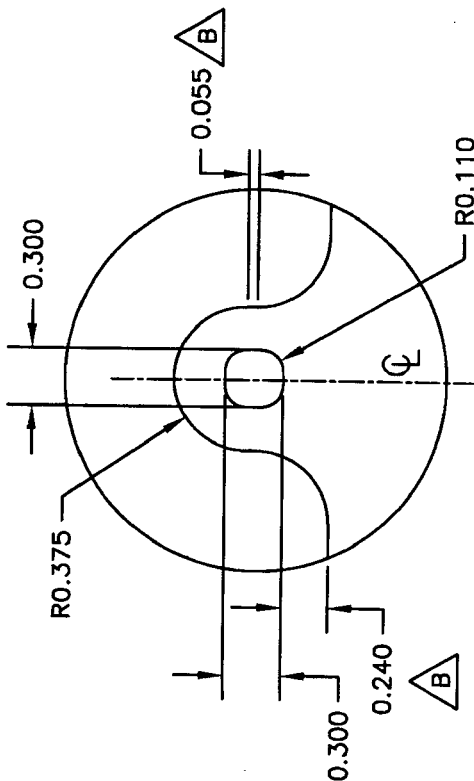
DESIGN CB	DRAWN BY PH	DART AEROSPACE USA, INC. PORT HADLOCK, WA	
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DATE 07.04.17	TITLE WEARSHOE		SCALE 1:1

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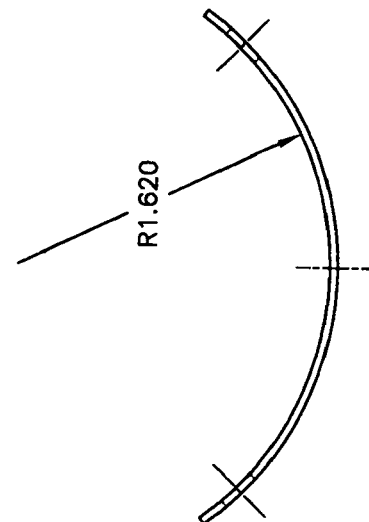
07.04.24



DETAIL B



DETAIL A



SECTION C-C

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